

SEMICONDUCTOR DEVICE HAVING A CONTACT WINDOW AND FABRICATION METHOD THEREOF

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ABSTRACT OF THE DISCLOSURE

Semiconductor devices having a contact window and fabrication methods thereof are provided. A lower dielectric layer, conductive patterns and an upper dielectric layer are formed sequentially on a semiconductor substrate. The lower dielectric layer has a higher isotropic etch rate than that of the upper dielectric layer. The upper dielectric layer and the lower dielectric layer are patterned by anisotropic etching to form a trench without exposing the semiconductor substrate. The resultant structure is subject to isotropic etching to expose the substrate and to form a contact window having a wider width in a lower region than in an upper region without damaging the semiconductor substrate.

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